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OFFICE WEST VIRGINIA
SECRETARY OF STATE

COAL PROPERTIES ANALYSIS

Tax Year 2004

August 29, 2003
Rebecca Melton Craig
State Tax Commissioner
Department of Tax and Revenue

PRODUCING COAL CAPITALIZATION RATE

Capitalization Rate Analysis and Results:

In developing a capitalization rate for use in valuing specific income-producing properties consideration is given to the three approaches generally employed in estimating a discount rate. As a matter of practicality, the Bands-of -Investment and Summation Technique approaches are utilized in establishing discount rates for active coal. Data for analysis has been derived in accordance with current Legislative Rule Title 110, Series 11.

<u>Safe Rate</u>	90 day Treasury Bills			<u>Safe Rate</u>
	January	December	2002	1.630%
	January	December	2001	3.469%
	January	December	2000	5.818%

<u>Risk Rate</u>	Interest differential between Loan Rate and 90 day Treasury Bills			
	<u>Loan Rate*</u>		<u>Debt Risk Rate</u>	
	2002	6.68%		5.050%
	2001	8.922%		5.453%
	2000	11.233%		5.415%
	*Prime plus 2%			

<u>Equity</u>	Differential between Equity Rates and 90 day Treasury Bills			
	<u>Equity Rate**</u>		<u>Equity Risk Rate</u>	
	2001	[13.0%/(1-.30)]-1.630		16.941%
	2001	[13.5%/(1-.30)]-3.469		15.817%
	2000	[13.5%/(1-.30)]-5.818		13.468%
	** Moody's Handbook on Common Stocks and Value Line Investment Analysis			

<u>CompositeRisk Rate</u>	Loan and Equity Rates weighted by industry estimated capital structure.			
	<u>Equity Rate</u>		<u>Debt Rate</u>	<u>Composite Risk</u>
	2002	10.165%	2.020%	12.185%
	2001	9.490%	2.181%	11.671%
	2000	8.081%	2.166%	10.247%
Note: Debt equity Ratio			Debt 40%	Equity 60%

Non Liquidity Rate Interest differential between a 90 day Treasury Bill and a 1 year Treasury Bill which reflects a reasonable time necessaryr to sell active porperty.

			<u>1yr T Bill</u>	<u>90 d T Bill</u>	<u>Non Liquidity Rate</u>
January	December	2002	2.000%	1.630%	0.370%
January	December	2001	3.481%	3.469%	0.012%
January	December	2000	5.777%	5.818%	-0.041%

Management Rate Charges for the management of investment portfolios.
Fixed Rate (by Rule) 0.500%

Inflation Rate

January	December	2002	2.400%
January	December	2001	1.600%
January	December	2000	3.400%

Capitalization Rate

Since the valuation of active coal property is predicated on a three year production average, the capitalization rate is considered in a similar manner.

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Inflation Rate	-2.400%	-1.600%	-3.400%
Safe Rate	1.630%	3.469%	5.818%
Composite Risk Rate	12.185%	11.671%	10.247%
Non Liquidity Rate	0.370%	0.012%	0.000%
Management Rate	0.500%	0.500%	0.500%
Total	12.285%	14.052%	13.165%

Three Yr Average: 13.167

Rounded to:

13.20%

CAPITALIZATION RATE - 13.20%

MULTIPLIERS:	%	%
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1YR	0.94	9YR	5.419
2YR	1.77	10YR	5.727
3YR	2.504	11YR	5.999
4YR	3.152	12YR	6.24
5YR	3.724	13YR	6.452
6YR	4.23	14YR	6.64
7YR	4.676	15YR	6.805
8YR	5.071		

COAL

Royalty Rate Analysis

The development of royalty rates for the various categories of mines and markets involves information collection and review from a variety of sources. Research data for coal lease rates have been derived from recorded lease transactions provided by county assessors, tax auditors, producers, and by individual lessors/lessees involved in the specific transaction. The prices for mined coal have been calculated from data published in "COAL WEEK", from pricing information provided by producers as part of the most recent tax filing, and from data obtained from the WV Public Service Commission and U.S. Energy Information Administration concerning power plant fuel purchases. Because a large portion of the data used in this analysis is, by law, considered confidential, only a summary of the results are published.

COAL SALE PRICES 2001 & 2002 FOR TY2004 APPLICATION

GRAND SUMMARY ALL SOURCES

	STEAM SPOT	STEAM TERM	MET
PSC *	\$26.51	\$28.14	*Coal Outlook no longer purchased by Library
Coal Week Publication	\$29.31		
Active Return Summary	\$25.74	<--S+T	\$32.67 32 MM tons

STATE STEAM PRICE	\$26.91	Weighted according to the 69.8/30.2 from the PSC tons below
STATE MET PRICE	\$32.67	
STATE STEAM SPOT PRICE	\$26.55	EIA & PSC, 3 YR WTD after public comment

	Spot Sales	Term Sales	Total
PSC Tons reported in thousands, 2002.	4,365	10086	14,451

COAL TY 2003 ROYALTY RATES

	5YR		6YR		7YR		8YR	
	%S	%D	%S	%D	%S	%D	%S	%D
TOTAL RECORDS	64	169	92	241	109	281	148	354
SUM of PERCENT	360.55	725.35	552.05	1089.4	651.05	1289.5	889.55	1761.8
STRAIGHT AVERAGE	5.63	4.77	6.00	4.86	5.97	4.88	6.01	5.21
MEDIAN	6.00	5.00	6.00	5.00	6.00	5.00	6.00	6.00
WEIGHTED AVERAGE	5.63	4.77	5.76	4.80	5.81	4.82	6.50	5.40

FINAL RATE SURFACE	5.94
FINAL RATE DEEP	5.04

ROYALTY RATE CALCULATIONS

Steam Coal/ Deep Mine	\$27.30 per ton X 5.04% =	\$1.36
Metallurgical Coal/ Deep Mine	\$32.67 per ton X 5.04% =	\$1.65
Steam Coal/ Surface Mine	\$27.30 per ton X 5.94% =	\$1.60
Metallurgical Coal/ Surface Mine	\$32.67 per ton X 5.94% =	\$1.94

Explanation of Reserve Coal Valuation

Valuation of reserve coal was changed significantly by adoption of the revised Legislative Rule, Title 110, Series 1I in March 1999. Beginning with the 2000 Tax Year, reserve coal was valued by a combination of a transitional coal valuation model (TCVM) and reserve coal valuation model (RCVM) by phasing out the TCVM value over five years. Thus, the reserve coal value for Tax Year 2004 will be determined in its entirety through use of the reserve coal valuation model.

The RCVM consists of a computer model, which utilized a database consisting of coal beds and characteristics, property locations, mine locations, sales, transportation, etc., for the entire state. An extensive algorithm calculates in-place tonnage, expected time of mining and present value for all the mineable coal on every property.

There are, therefore, no set "rates" available on reserve coal under the Rule. The RCVM values on each property will not be available until all data has been entered, after November 15 of each year. Please refer to the State Register, Legislative Rules, Title 110, Series 1I for details of the process.

OIL AND GAS PROPERTIES ANALYSIS

Tax Year 2004

August 29, 2003
Rebecca Melton Craig
State Tax Commissioner
Department of Tax and Revenue

OIL AND GAS

Capitalization Rate Analysis and Results:

In developing a capitalization rate for use in valuing specific income-producing properties consideration is given to the three approaches generally employed in estimating a discount rate. As a matter of practicality, the Bands-of-Investment and Summation Technique approaches are utilized in establishing discount rates for producing oil and gas properties. Data for analysis has been derived in accordance with current Legislative Rule Title 110, Series 1J.

Safe Rate (3-Month Constant Maturity Interest Rates)
 January December 2002 1.633%

Risk Rate (Interest differential between Loan Rate and 3-Month Constant Maturity Interest Rates)
Loan Rate* **Risk Rate**
 2002 6.6750% 5.0417%
 *Prime plus 2%

Equity (Differential between Equity Rates and 3-Month Constant Maturity Interest Rates)
Equity Rate** **Safe Rate**
 2002 [13.0%/(1-.37)]-1.633 19.0016%
 ** Moody's Handbook on Common Stocks and Value Line Investment Analysis

Composite Risk Rate Loan and Equity Rates weighted by industry estimated capital structure.

	Equity Rate	Debt Rate	Composite Risk	
2002	11.4010%	2.0167%	14.013%	***
Note: Debt equity Ratio		Debt	40%	Equity 60%
*** Effective severance tax adjustment			0.9575	

Non Liquidity Rate Interest differential between 3-month Constant Maturity Interest Rates and a 1 year Constant Maturity Interest Rates which reflects a reasonable time necessary to sell active property.

			<u>1yr T Bill</u>	<u>90 day T Bill</u>	<u>Non Liquidity Rate</u>
January	December	2002	2.002%	1.633%	0.368%

Management Rate Charges for the management of investment portfolios.
 Fixed Rate (by Rule) 0.500%

Property Tax Rate Sixty percent (60%) of State average Class III property tax rate.
 2002 60% of 2.25= 1.350%

Inflation Rate
 January December 2002 2.400%

Capitalization Rate

Since the valuation of oil and gas property is predicated on a one year production , the capitalization rate will be considered in a similar manner.

	<u>2002</u>
Inflation Rate	-2.400%
Safe Rate	1.633%
Composite Risk Rate	14.013%
Non Liquidity Rate	0.368%
Management Rate	0.500%
Property Tax Rate	<u>1.350%</u>
Total	15.465%

Capitalization Rate Rounded to:

15.50%

MULTIPLIERS FOR 15.50 MID-YEAR LIFE (ANNUALLY)

<u>YEAR</u>		<u>YEAR</u>	
1	0.930484	21	0.052128
2	0.805614	22	0.045132
3	0.697501	23	0.039076
4	0.603897	24	0.033832
5	0.522855	25	0.029291
6	0.452688	26	0.025361
7	0.391938	27	0.021957
8	0.339340	28	0.019011
9	0.293801	29	0.016459
10	0.254373	30	0.014251
11	0.220236	31	0.012338
12	0.190681	32	0.010682
13	0.165092	33	0.009249
14	0.142937	34	0.008008
15	0.123755	35	0.006933
16	0.107147	36	0.006003
17	0.092768	37	0.005197
18	0.080318	38	0.004500
19	0.069540	39	0.003896
20	0.060208	40	0.003373

**OTHER MINED MINERAL
PROPERTY ANALYSIS**

Tax Year 2004

August 29, 2003
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State Tax Commissioner
Department of Tax and Revenue

PRODUCING OTHER MINED MINERALS CAPITALIZATION RATE

Capitalization Rate Analysis and Results:

In developing a capitalization rate for use in valuing specific income-producing properties consideration is given to the three approaches generally employed in estimating a discount rate. As a matter of practicality, the Bands-of -Investment and Summation Technique approaches are utilized in establishing discount rates for active coal. Data for analysis has been derived in accordance with current Legislative Rule Title 110, Series 1k.

<u>Safe Rate</u>	90 day Treasury Bills			<u>Safe Rate</u>
	January	December	2002	1.630%
	January	December	2001	3.469%
	January	December	2000	5.818%

<u>Risk Rate</u>	Interest differential between Loan Rate and 90 day Treasury Bills			
	<u>Loan Rate*</u>		<u>Debt Risk Rate</u>	
	2002	6.680%	2002	5.050%
	2001	8.922%	2001	5.453%
	2000	11.233%	2000	5.415%
	*Prime plus 2%			

<u>Equity</u>	Differential between Equity Rates and 90 day Treasury Bills			
	<u>Equity Rate**</u>		<u>Equity Risk Rate</u>	
	2002	[13.0%/(1-.30)]-1.630	2002	16.941%
	2001	[13.5%/(1-.30)]-3.469	2001	15.817%
	2000	[13.5%/(1-.30)]-5.818	2000	13.468%
	** Moody's Handbook on Common Stocks and Value Line Investment Analysis			

<u>Composite Risk Rate</u>	Loan and Equity Rates weighted by industry estimated capital structure.			
	<u>Equity Rate</u>		<u>Debt Rate</u>	<u>Composite Risk</u>
	2001	10.165%	2.020%	12.185%
	2000	9.490%	2.181%	11.671%
	1999	8.081%	2.166%	10.247%
	Note: Debt equity Ratio		Debt 40%	Equity 60%

Non Liquidity Rate Interest differential between 90 day Treasury Bills and a 1 year Treasury Bill which reflects a reasonable time necessary to sell active property.

			<u>1yr T Bill</u>	<u>90 d T Bill</u>	<u>Non Liquidity Rate</u>
January	December	2002	2.000%	1.630%	0.370%
January	December	2001	3.481%	3.469%	0.012%
January	December	2000	5.777%	5.818%	-0.041%

Management Rate Charges for the management of investment portfolios.
Fixed Rate (by Rule) 0.500%

<u>Inflation Rate</u>			
January	December	2002	2.400%
January	December	2001	1.600%
January	December	2000	3.400%

<u>Property Tax Rate</u>	Sixty percent (60%) of State average Class III property tax rate.			
January	November	2002	60% of 2.14 =	1.284%
January	December	2001	60% of 2.39 =	1.434%
January	December	2000	60% of 2.17 =	1.302%

Capitalization Rate

Since the valuation of other mined mineral property is predicated on a three year production average, the capitalization rate is considered in a similar manner.

	<u>2002</u>	<u>2001</u>	<u>2000</u>
Inflation Rate	-2.400%	-1.600%	-3.400%
Safe Rate	1.630%	3.469%	5.818%
Composite Risk Rate	12.185%	11.671%	10.247%
Non Liquidity Rate	0.370%	0.012%	0.000%
Management Rate	0.500%	0.500%	0.500%
<u>Property Tax Rate</u>	1.284%	1.434%	1.302%
<u>Total</u>	13.569%	15.486%	14.467%

Three Yr Average: 14.507%

Rounded to:

14.50%

CAPITALIZATION RATE - 14.50%

MULTIPLIERS:		%		%
1YR	0.935	9YR	5.198	
2YR	1.751	10YR	5.474	
3YR	2.464	11YR	5.716	
4YR	3.086	12YR	5.926	
5YR	3.63	13YR	6.11	
6YR	4.105	14YR	6.271	
7YR	4.519	15YR	6.411	
8YR	4.882			

OTHER MINED MINERALS

ROYALTY RATE SURVEY

The determination of royalty rates for other mined minerals within the state of West Virginia is dependent upon the availability of leasehold information. Since this information is limited, the Department has chosen to review data for the most recent thirty year period. A summary only of this review is shown below in order to protect the confidentiality of parties involved.

RESOURCE	DATA SOURCES	WTD AVERAGE PRICE	AVERAGE ROYALTY	MEDIAN ROYALTY	TY2004 RATE
LIMESTONE	22	\$6.20	\$0.23	\$0.32	\$0.23
SANDSTONE	9	\$16.82	\$0.47	\$0.58	\$0.58
CLAY/SHALE	32	N/A	\$0.11	\$0.10	\$0.11
SAND/GRAVEL	3	\$5.52	\$0.33	\$0.33	\$0.33
SALT BRINE	0	N/A	N/A	N/A	\$0.10

RESERVE VALUES

	number of sales	\$/AC
LIMESTONE	12	\$680.00
SANDSTONE	3	\$3,300.00
CLAY/SHALE	16	\$850.00
SAND/GRAVEL	4	\$5,415.00
SALT	6	\$1,140.00